



Complete Summary

TITLE

Childhood immunization: percentage of patients who received their primary course of immunizations (i.e., DPT-HiB, polio x4, and MMR) by age 24 months.

SOURCE(S)

Katz A, DeCoster C, Bogdanovic B, Soodeen RA, Chateau D. Using administrative data to develop indicators of quality in family practice. Winnipeg, Manitoba: Manitoba Centre for Health Policy, University of Manitoba; 2004 Mar. 87 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of children who received their primary course of immunizations (i.e., DPT-HiB [diphtheria, pertussis tetanus, haemophilus influenza type B], polio x4, and MMR [measles, mumps, rubella]) by age 24 months.

RATIONALE

Parents in Manitoba are encouraged to have their children immunized against a variety of preventable childhood illnesses according to provincial and Canadian guidelines. The recommendations include 13 immunizations within the first two years of life.

PRIMARY CLINICAL COMPONENT

Childhood immunization; DPT-HiB (diphtheria, pertussis, tetanus, haemophilus influenza type B); polio; MMR (measles, mumps, rubella)

DENOMINATOR DESCRIPTION

Children assigned to a family physician who reached the age of 24 months in the year prior to the measurement year (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Number of children from the denominator who received their primary course of immunizations (i.e., DPT-HiB [diphtheria, pertussis tetanus, haemophilus influenza type B], polio x4, and MMR [measles, mumps, rubella])

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- Focus groups
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

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State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement
Quality of care research

Application of Measure in its Current Use

CARE SETTING

Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age equal to 24 months

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Most published studies have used community surveys to extrapolate population immunization rates; rates vary from 31% to 79%. Canadian data are generally better than the U.S. data (75% vs. 64%, respectively) possibly due to Canada's universal health insurance coverage.

EVIDENCE FOR INCIDENCE/PREVALENCE

Gore P, Madhavan S, Curry D, McClung G, Castiglia M, Rosenbluth SA, Smego RA. Predictors of childhood immunization completion in a rural population. Soc Sci Med 1999 Apr; 48(8): 1011-27. [PubMed](#)

Kimmel SR, Madlon-Kay D, Burns IT, Admire JB. Breaking the barriers to childhood immunization. Am Fam Physician 1996 Apr; 53(5): 1648-66. [28 references] [PubMed](#)

Salsberry PJ, Nickel JT, Mitch R. Immunization status of 2-year-olds in middle/upper- and lower-income populations: a community survey. Public Health Nurs 1994 Feb; 11(1): 17-23. [PubMed](#)

Sullivan EA, Chey T, Nossar V. A population-based survey of immunization coverage in children aged 2 years and younger in New South Wales. J Paediatr Child Health 1998 Aug; 34(4): 342-5. [PubMed](#)

Szilagyi PG, Bordley C, Vann JC, Chelminski A, Kraus RM, Margolis PA, Rodewald LE. Effect of patient reminder/recall interventions on immunization rates: A review. JAMA 2000 Oct 11; 284(14): 1820-7. [71 references] [PubMed](#)

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Timeliness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Children assigned to a family physician who reached the age of 24 months in the year prior to the measurement year (see the "Denominator Inclusions/Exclusions" field)

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Children assigned* to a family physician who reached the age of 24 months in the year prior to the measurement year

*A patient is allocated to the physician with the most visits (as defined by cost). In the case of a tie, the patient is allocated to the physician with the greatest total cost. Total cost calculations include direct care (i.e., visits) and indirect care (i.e., referrals to other physicians or for services such as lab tests and x-rays).

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Patient Characteristic

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of children from the denominator who received their primary course of immunizations (i.e., DPT-HiB [diphtheria, pertussis tetanus, haemophilus influenza type B], polio x4, and MMR [measles, mumps, rubella])

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Registry data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Childhood immunization.

MEASURE COLLECTION

[Indicators of Quality in Family Practice](#)

MEASURE SET NAME

[Disease Prevention/Health Promotion](#)

DEVELOPER

Manitoba Centre for Health Policy

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2004 Mar

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Katz A, DeCoster C, Bogdanovic B, Soodeen RA, Chateau D. Using administrative data to develop indicators of quality in family practice. Winnipeg, Manitoba: Manitoba Centre for Health Policy, University of Manitoba; 2004 Mar. 87 p.

MEASURE AVAILABILITY

The individual measure, "Childhood Immunization," is published in "Using Administrative Data to Develop Indicators of Quality in Family Practice." This document is available in Portable Document Format (PDF) from the [Manitoba Centre for Health Policy Web site](#).

For further information, contact: Manitoba Centre for Health Policy, Department of Community Health Sciences, Faculty of Medicine, University of Manitoba, 4th Floor, Room 408, 727 McDermot Ave, Winnipeg, Manitoba R3E 3P5; telephone: (204) 789-3819; fax: (204) 789-3910; Web site: www.umanitoba.ca/centres/mchp.

NQMC STATUS

This NQMC summary was completed by ECRI on April 18, 2006. The information was verified by the measure developer on May 1, 2006.

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